

REMARKS

This application has been reviewed in view of the Office Action mailed on August 25, 2004. Claims 20-36 are pending in the application with claims 20 and 31 being in independent form. By the present Amendment, some of the claims have been amended in part. No new matter is believed to be introduced by the amendments.

In the Office Action, the specification was objected to because of two informalities. These informalities have been corrected in compliance with the Examiner's instructions. The specification has also been corrected via this response by changing "fibrous" and "fibrosis" to "fibrosus" and by changing "pulpous" and "pulposis" to "pulposus."

In the Office Action, claims 20-25 and 29-32 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,126,682 to Sharkey et al. Sharkey et al. disclose a catheter that is advanceable through the nucleus pulposus and the inner wall of the annulus fibrosus. The catheter of the Sharkey '682 patent has "insufficient penetration ability to be advanceable out through the annulus fibrosus under the applied force" (column 4, lines 2-10). Sharkey et al. disclose a catheter that is incapable of piercing the annulus fibrosus, see illustration in FIGURE 4. Either an introducer 12 (FIG. 4; column 11, lines 5-8) or a sharp trocar (not illustrated; column 11, lines 43-45) is used to pierce the annulus fibrosus 122. Further, it is explicitly stated with regard to FIGURE 4 that "[t]he distal portion 28 of intradiscal section 16 is designed to be incapable of piercing the annulus fibrosus 122" (column 11, lines 21-22).

In contrast, claim 20 as presently amended includes a thermal probe with a “guidable region that is advanceable within the annulus fibrosus of the intervertebral disc in response to a force....” Support for the amended claim language was disclosed as originally filed on page 4, lines 4-7; page 13, lines 13-15; and page 13, lines 22-24. Additionally, this aspect of Applicants’ disclosure is visible in FIGURE 1 of the application. FIGURE 1 illustrates, and page 6, lines 6-9 describes a cannula tip 5 that has been inserted into the outer annular portion of the intervertebral disc ID and a heat probe 16 that has been advanced within the natural striata of the disc annulus, or annulus fibrosus A of the disc.

It is respectfully submitted that claim 20 of the pending claims is patentably distinguishable from Sharkey et al. for at least the reasons discussed hereinabove. Accordingly, withdrawal of this rejection is respectfully requested. Further, since claims 21-30 either directly or indirectly depend from claim 20, it is respectfully submitted that these claims are also patentably distinct.

Referring to claim 31, which as presently amended recites a “guidable region characterized by having sufficient rigidity to puncture and advance within the annulus fibrosus of the intervertebral disc....” For at least the reasons stated above, with regard to claim 20, it is respectfully submitted that claim 31 is also now in condition for allowance. Further, since claims 32-36 either directly or indirectly depend from claim 31, it is respectfully submitted that these claims are also in condition for allowance.

Claims 26-28, 33 and 34 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sharkey et al. ‘682 in view of U.S. Patent No. 5,084,043 to Hertzmann et al. It is

respectfully submitted that the Hertzmann patent does not overcome the deficiencies of the Sharkey '682 patent disclosure and, therefore, that these claims are at least patentable for the reasons independent claims 20 and 31 are patentable as discussed hereinabove. Accordingly, withdrawal of this rejection is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely claims 20-36, are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, he is requested to call the Applicant's undersigned attorney.

Respectfully submitted,



Raymond E. Farrell
Reg. No. 34,816
Attorney for Applicants

Mailing Address:
Chief Patent Counsel
UNITED STATES SURGICAL
Division of Tyco Healthcare Group LP
150 Glover Avenue
Norwalk, Connecticut 06856
(203) 845-1480